

REMARKS

Present Status of the Application

Currently, Claim 3 is objected because of containing a double inclusion, i.e, repeated limitation, “a thrust member attached to one end of the housing”. Claim 7 is objected because of improper dependency.

Claim 6 is rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4, 7 and 9 are rejected under 35 U.S.C 103 (a) as being unpatentable over Mori et al (US 2002/0025089) in view of Fujinaka (WO 02/10602, US Patent 6,832,853 is referenced as an English translation).

Claim 8 is rejected under 35 U.S.C 103(a) as being unpatentable over Mori in view of Fujinaka as applied to claim 1 above, and further in view of Hirata (US 2002/0173431).

Claim 6 is rejected under 35 U.S.C 103(a) as being unpatentable over Mori in view of Tanaka (US Patent 5,683,183).

After carefully considering the comments set forth in the Final Office Action and the cited references, Applicants cancel Claims 1-4 and 6-9, and submit a new Claim 10. Support for the newly added Claim 10 can be found from the specification and the drawings (FIG.5 and page 18, line13 ~ page 20, line14). There is no new matter entered thereby.

Discussion of the Claim Objections

Claims 3 and 7 are canceled.

Discussion of the Claim Rejections under 35 U.S.C 112

Claim 6 is canceled.

Discussion of the Claim Rejection under 35 U.S.C 103

The new Claim 10 directs to the embodiment as shown in FIG. 5 (see the present specification on page 18, line 13 – page 20, line14).

In the present invention as claimed in new Claim10, the thrust member comprises an end face which has a thrust bearing surface of the thrust bearing portion, and an annular contact portion which extends axially toward the other end of the housing from the end face of the thrust member. Also, the bearing sleeve comprises an end face which has a thrust bearing surface of the thrust bearing portion. An end face of the annular contact portion makes contact with the end face of said bearing sleeve, which has the thrust bearing surface of the thrust bearing portion, and an inner peripheral surface of the annular contact portion of the thrust member is oppose to an outer peripheral surface of the flange portion across a gap.

Only with making the end face of the annular contact portion of the thrust member contact with the end face of said bearing sleeve, the thrust bearing gap between the bearing sleeve and the flange portion, and between the thrust member and the flange portion can be set.

Also with controlling the axial dimensions of the annular contact portion and the flange portion, it is possible to accurately determine the thrust gap.

Any of the cited documents, such as Mori (US 2002/0025089), Fujinaka (WO 02/10602), Hirata (US 2002/0173431) and Tanaka (US patent 5,683,183), fail to disclose or teach the above technical feature described in the new Claim 10.

Certainly, in Fujinaka, as shown in FIG.2, discloses the bear device in which the lower end of the shaft 4 is made into a spherical surface to contact with the thrust plate 7, which is disposed on the cap 9, in the state of *point contact* (so called as a pivot bearing). The cap 9 contacts with the lower end of the bearing sleeve 3, however, the lower end of the bearing sleeve 3 is **NOT** a portion which constitutes a thrust bearing portion. In Fujinaka, the thrust bearing portion is constituted with the spherical lower end of the shaft 4 and the thrust plate 7 on the cap 9, which does not need a set or control of a thrust bearing gap inherently.

To sum up, person skilled at art can't obviously obtain above technical features of the new Claim 10 based on Mori, Fujinaka, Hirata and Tanaka i.e., the new Claim 10 has non-obviousness and meets the needs of 35 U.S.C 103(a).

CONCLUSION

For at least the foregoing reasons, it is believed that the pending Claim 10 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
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